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## XTO in the news for conventional well waste water in PA going to surface dischargers.

### Drillers send conventional brine to treatment plants

Mike Soraghan, E&E reporter

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Marcellus Shale companies are still sending drilling wastewater to plants that discharge it into Pennsylvania rivers and streams. They're just not sending the wastewater from their Marcellus Shale wells.

The salty, toxin-laced water is being sent from conventional oil and gas wells, many of them owned by companies that also produce gas from the Marcellus Shale.

More than 2 million barrels (86 million gallons) of drilling wastewater was sent in 2012 to a handful of treatment plants "grandfathered" under old rules allowing them to discharge into streams, according to figures released recently from the Pennsylvania Department of Environmental Protection.

That is a dramatic drop from 2009, when more than 25 million barrels was sent to plants that discharged into streams. In April 2011, under pressure from DEP and U.S. EPA, drillers all but stopped sending waste from Marcellus wells to such plants. Much of it is now recycled. State officials and industry groups have touted the success of the voluntary initiative.

#### Pennsylvania brine

The top five Pennsylvania oil and gas operators sending drilling wastewater to treatment plants that discharge into rivers

Operator	Barrels of wastewater
Pierce & Petersen	418,710
XTO Energy Inc.	182,533
Catalyst Energy Inc.	124,155
Penneco Oil Co. Inc.	99,857
Atlas Resources LLC	95,762

*Source: Pennsylvania Department of Environmental Protection*

Pennsylvania's shale drillers say the focus should be on their rapid increase in reuse and recycling of brine.

"The sea change in water management across the Marcellus continues to demonstrate our industry's commitment to recycling and reusing water and protecting our environment," said Kathryn Klaber, CEO of the Marcellus Shale Coalition.

Regulators didn't make the same push for wastewater from the more than 70,000 conventional wells in the state. Though they are far fewer in number, Marcellus wells generate much more wastewater.

But environmentalists note that besides volume, there is not much difference between Marcellus brine and wastewater from conventional drilling.

"It seems like if you're set up to recycle wastewater, distinguishing between Marcellus and conventional doesn't make sense," said Myron Arnowitt, Pennsylvania state director for Clean Water Action.

About one-fourth of the conventional wastewater sent to grandfathered plants came from 14 companies that drill in the Marcellus Shale. XTO Energy Inc., the Exxon Mobil subsidiary that owns the most conventional wells in the state, sent the most last year, about 176,000 barrels.

On the other hand, Range Resources Corp., which owns the third-highest number of conventional wells in Pennsylvania, sent no waste to plants that discharge into streams.

"Range identified many years ago that while Pennsylvania's waterways are strong, they are stressed from other industries and that our industry should not add to that stress," said Range spokesman Matt Pitzarella, "which is why all of our water is recycled and reused, including conventional production."

An XTO spokesman noted that the treatment plants where the waste is sent are approved for that by DEP. XTO acquired the conventional wells in its acquisition of Linn Energy LLC, before Exxon Mobil bought the company, and Phillips Resources Inc., which was purchased after.

The 2 million barrels of conventional brine sent to grandfathered plants is a 24 percent decrease from 2011, and it pales in comparison to the 24 million barrels of Marcellus Shale wastewater recycled or reused last year.

## **'Grandfathered' plants raise concerns**

State officials say wastewater from conventional wells doesn't create the problem that the volumes of Marcellus Shale wastewater did.

"We encourage the reuse of wastewater by all industries wherever possible," said DEP spokesman Kevin Sunday. "But we also understand that conventional drillers simply do not have the same need for water that horizontal hydraulic fracturing operators do and, that being the case, have permitted facilities in place to manage this wastewater. The permit conditions and regulations we have in place are protective of our waterways."

Still, environmental groups are concerned about contaminant levels near the outfalls of the grandfathered plants. Arnowitt said readings for chloride, a salt commonly associated with drilling wastewater, are alarmingly high in portions of the Allegheny River and its tributaries where those plants are located.

That raises a parallel concern that bromide levels may be elevated, Arnowitt said. But DEP doesn't require the plants to test for bromide, which can combine with chlorine during treatment to form carcinogens.

State officials stress that DEP Secretary Michael Krancer's voluntary call for shale drillers to stop sending their brine to plants that discharge into streams has led to more than 70 percent of the state's drilling wastewater being

recycled. They say that means a significant source of bromide was taken out of the state's streams.

"As a result of the secretary's call, a sea change in disposal practices occurred," said Sunday. "We continue to monitor bromide levels in the waterways and will take any needed action to protect our waterways."

But the co-owner of three of the grandfathered plants says the huge drop in drilling brine coming to his facilities and others hasn't led to reduced bromide levels.

"Bromide levels have not decreased," said Paul Hart, president and co-owner of Hart Resource Technologies Inc. "So, logically, Marcellus drilling didn't cause the problem."

Another 77,000 barrels (8 million gallons) of conventional wastewater was sent last year to municipal sewage treatment plants, which also discharge into rivers and streams.